

Regional HIV/AIDS Epidemiologic Profile of City of Boston, Massachusetts: 2013

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2012: City of Boston, Massachusetts²

	N	%
People Living with HIV/AIDS	5,404	57%
People Reported with HIV or AIDS who are Deceased	4,121	43%
Total Number of People Reported with HIV Infection or AIDS	9,525	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12¹: City of Boston, Massachusetts²

Average annual HIV diagnosis rate from 2009–2011	Average rate per 100,000	Average annual number of HIV diagnoses
City of Boston, MA	30.2	186.3
Massachusetts Total	10.3	664.7
HIV/AIDS prevalence rate on 12/31/12	Rate per 100,000	Number of people living with HIV/AIDS
City of Boston, MA	875.0	5,404
Massachusetts Total	277.5	18,170

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2002–2011, City of Boston, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2002	3,995	113	306
2003	4,174	93	272
2004	4,334	78	238
2005	4,522	74	262
2006	4,649	85	212
2007	4,771	73	195
2008	4,898	73	200
2009	5,016	62	180
2010	5,140	64	188
2011	5,280	51	191

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 4. People diagnosed with HIV infection from 2009–2011¹ and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: City of Boston, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	424	76%	4,134	76%
Female	135	24%	1,270	24%
Place of Birth:	N	%	N	%
US	365	65%	3,726	69%
Puerto Rico/US Dependency ³	25	4%	319	6%
Non-US	169	30%	1,359	25%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	180	32%	2,161	40%
Black (non-Hispanic)	249	45%	2,159	40%
Hispanic/Latino	112	20%	982	18%
Asian/Pacific Islander	13	2%	80	1%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	262	47%	2,588	48%
Injection Drug Use (IDU)	34	6%	729	13%
MSM/IDU	14	3%	199	4%
Heterosexual Sex	63	11%	672	12%
Other	6	1%	102	2%
Total Undetermined	180	32%	1,114	21%
• Presumed Heterosexual Sex ⁴	67	12%	421	8%
• Undetermined ⁵	113	20%	693	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2012	
Under 13	5	1%	8	<1%
13 to 19	16	3%	35	1%
20 to 24	57	10%	74	1%
25 to 29	67	12%	169	3%
30 to 34	63	11%	249	5%
35 to 39	81	14%	360	7%
40 to 44	75	13%	602	11%
45 to 49	81	14%	1,008	19%
50 to 54	52	9%	1,109	21%
55 to 59	36	6%	885	16%
60+	26	5%	905	17%
Total⁶	559	100%	5,404	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: City of Boston, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,007	49%	154	12%
Black (non-Hispanic)	1,291	31%	868	68%
Hispanic/Latino	754	18%	228	18%
Asian/Pacific Islander	67	2%	13	1%
Total²	4,134	100%	1,270	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: City of Boston, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,588	63%	N/A	N/A
Injection drug use (IDU)	479	12%	250	20%
MSM/IDU	199	5%	N/A	N/A
Heterosexual sex	214	5%	458	36%
Other	52	1%	50	4%
Total Undetermined	602	15%	512	40%
• Presumed heterosexual sex ²	N/A	N/A	421	33%
• Undetermined ³	602	15%	91	7%
Total	4,134	100%	1,270	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: City of Boston, Massachusetts¹, 2002–2011²

	Male		Female		Total
	N	%	N	%	
2002	220	72%	86	28%	306
2003	188	69%	84	31%	272
2004	182	76%	56	24%	238
2005	204	78%	58	22%	262
2006	167	79%	45	21%	212
2007	156	80%	39	20%	195
2008	165	83%	35	18%	200
2009	142	79%	38	21%	180
2010	137	73%	51	27%	188
2011	145	76%	46	24%	191

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: City of Boston, Massachusetts¹, 2002–2011²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2002	100	33%	152	50%	49	16%	306
2003	92	34%	120	44%	57	21%	272
2004	83	35%	111	47%	40	17%	238
2005	95	36%	105	40%	59	23%	262
2006	85	40%	83	39%	42	20%	212
2007	80	41%	75	38%	33	17%	195
2008	84	42%	76	38%	36	18%	200
2009	65	36%	81	45%	33	18%	180
2010	63	34%	76	40%	41	22%	188
2011	52	27%	92	48%	38	20%	191

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: City of Boston, Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2002	190	62%	14	5%	102	33%	306
2003	175	64%	18	7%	79	29%	272
2004	161	68%	8	3%	69	29%	238
2005	173	66%	17	6%	72	27%	262
2006	134	63%	9	4%	69	33%	212
2007	131	67%	8	4%	56	29%	195
2008	132	66%	11	6%	57	29%	200
2009	124	69%	11	6%	45	25%	180
2010	115	61%	8	4%	65	35%	188
2011	126	66%	6	3%	59	31%	191

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: City of Boston, Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	119	39%	39	13%	-- ⁵	-- ⁵	55	18%	-- ⁵	-- ⁵	22	7%	55	18%	306
2003	104	38%	34	13%	-- ⁵	-- ⁵	35	13%	-- ⁵	-- ⁵	36	13%	49	18%	272
2004	109	46%	21	9%	-- ⁵	-- ⁵	22	9%	-- ⁵	-- ⁵	33	14%	43	18%	238
2005	137	52%	21	8%	-- ⁵	-- ⁵	30	11%	-- ⁵	-- ⁵	22	8%	41	16%	262
2006	109	51%	15	7%	-- ⁵	-- ⁵	26	12%	-- ⁵	-- ⁵	21	10%	31	15%	212
2007	96	49%	23	12%	-- ⁵	-- ⁵	15	8%	-- ⁵	-- ⁵	13	7%	37	19%	195
2008	101	51%	11	6%	-- ⁵	-- ⁵	21	11%	-- ⁵	-- ⁵	14	7%	39	20%	200
2009	88	49%	10	6%	-- ⁵	-- ⁵	22	12%	-- ⁵	-- ⁵	17	9%	38	21%	180
2010	90	48%	13	7%	-- ⁵	-- ⁵	19	10%	-- ⁵	-- ⁵	28	15%	32	17%	188
2011	84	44%	11	6%	-- ⁵	-- ⁵	22	12%	-- ⁵	-- ⁵	22	12%	43	23%	191

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: City of Boston, Massachusetts¹, 2002–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	98	306	32%
2003	89	272	33%
2004	75	238	32%
2005	80	262	31%
2006	74	212	35%
2007	64	195	33%
2008	49	200	25%
2009	50	180	28%
2010	50	188	27%
2011	54	191	28%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: City of Boston, Massachusetts,¹ 2009–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	115	424	27%
Female	39	135	29%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	41	180	23%
Black (non-Hispanic)	83	249	33%
Hispanic/Latino	29	112	26%
Asian/Pacific Islander	-- ⁵	-- ⁵	-- ⁵
Other/Undetermined ³	-- ⁵	-- ⁵	-- ⁵
Place of Birth:	N	N	%
US	-- ⁵	-- ⁵	-- ⁵
Puerto Rico/US Dependencies ⁴	-- ⁵	-- ⁵	-- ⁵
Non-US	59	169	35%
Total	154	559	28%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13